

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of All Pending Claims

1. -5. (canceled)

6. (currently amended) A method for determining when to exit an existing coverage network in a wireless communications device, the method comprising the steps of:

~~The method of claim 5 further comprising:~~ determining the a threshold boundary line; and,

~~partitioning an area using the threshold boundary line to partition,~~ into a first zone and a second zone zones, ~~an~~ the area including at least a portion of a first coverage area for the existing coverage network and at least a portion of a second coverage area for a second coverage network proximate the existing coverage network, the first zone proximate a first side of the threshold boundary line oriented toward ~~the a~~ a geographical center for the existing coverage network and the second zone proximate a second side of the threshold boundary line;

compiling a history of geographical location data of the wireless communications device, comprising the steps of:

supplying the wireless communications device a plurality of sample points comprising geographical positions of the wireless communications device;

measuring a position of each sample point of the plurality of sample points with respect to the threshold boundary line; and,

maintaining a running sum of the measured position of the each sample point, wherein maintaining a the running sum comprises the steps of: in response to measuring position includes:

decrementing the running sum for ~~sample point positions~~ the measured position of the each sample point in the first zone;
and,
incrementing the running sum for ~~sample point positions~~ the measured position of the each sample point in the second zone~~[[.]]; and~~
comparing the running sum to a terminal value; and
exiting the existing coverage network based upon the compiled history of geographical location data.

7. (original) The method of claim 6 wherein exiting the existing coverage network includes exiting when the running sum is greater than the terminal value.

8. (currently amended) The method of claim 7 6 wherein the step of measuring the position ~~for of the~~ each sample point with respect to a ~~predetermined~~ the threshold boundary line includes assigning an accumulation amount to the each sample point position; and, wherein maintaining a the running sum ~~in response to measuring position~~ includes using the accumulation amount for the each sample point to amounts to ~~change~~ decrement or increment the running sum.

9. (currently amended) The method of claim 8 6 wherein measuring the position of the each sample point with respect to a ~~predetermined~~ the threshold boundary line includes:

measuring a first sample point position~~[[.]]~~ in the first zone~~[[.]]~~ at a first perpendicular distance from a point on the boundary line; and,

measuring a second sample point position~~[[.]]~~ in the second zone~~[[.]]~~ at a second perpendicular distance from the threshold boundary line;

~~wherein assigning an accumulation amount to each sample point position~~
~~includes~~ assigning a first accumulation amount to the first sample point position and a

second accumulation amount to the second sample point position;

wherein decrementing the running sum ~~for sample point positions in the first zone~~ includes using the first accumulation amount to decrement the running sum; and,

wherein incrementing the running sum ~~for sample point positions in the second zone~~ includes using the second accumulation amount to increment the running sum.

10. (currently amended) The method of claim 6 & wherein the step of measuring the position of the each sample point with respect to a ~~predetermined~~ the threshold boundary line includes:

measuring, in the first zone, a first plurality of sample point positions with an initial sample point position a ~~third~~ first perpendicular distance, ~~greater than the first perpendicular distance,~~ from the threshold boundary line and with each successive position a greater perpendicular distance from the threshold boundary line than a preceding position; and,

measuring, in the second zone, a second plurality of sample point positions with ~~an~~ a second initial sample point position a ~~fourth~~ second perpendicular distance, ~~greater than the second perpendicular distance,~~ from the threshold boundary line and with each successive position a greater perpendicular distance from the threshold boundary line than a preceding position;

wherein assigning an accumulation amount to the each sample point position includes: assigning a first plurality of successively larger accumulation amounts to respective positions in the first plurality of sample point positions, beginning with the initial sample point position; and,

assigning a second plurality of successively larger accumulation amounts to respective positions in the second plurality of sample point positions, beginning with the second initial sample point position;

wherein decrementing the running sum ~~for sample point positions in the first zone~~ includes using respective accumulation amounts in the first plurality of accumulation amounts to decrement the running sum; and,

wherein incrementing the running sum ~~for sample point positions in the second zone~~ includes using respective accumulation amounts in the second plurality of accumulation amounts to decrement the running sum.

11. (canceled)

12. (currently amended) The method of claim 6 ~~8~~ wherein ~~providing the device geographical position includes the~~ wireless communications device assists ~~assisting in~~ determining device geographical position.

13. (currently amended) The method of claim 6 ~~8~~ wherein ~~providing the device geographical position includes receiving device~~ the geographical positions ~~position are~~ received from a source external to the wireless communications device.

14. (currently amended) The method of claim 6 ~~8~~ wherein determining the threshold boundary line includes forming a threshold boundary line using a plurality of vectors referenced to ~~the~~ a geographical center of the existing coverage network.

15. (currently amended) The method of claim 6 ~~8~~ wherein determining the threshold boundary line includes adapting the threshold boundary line to dynamic conditions in a coverage network cell.

16. (original) The method of claim 15 wherein adapting the threshold boundary line to dynamic conditions in a coverage network cell includes adapting to dynamic conditions in a Code Division Multiple Access (CDMA) cell.

17. (currently amended) The method of claim 6 ~~4~~ further comprising the steps of:
compiling information regarding coverage areas for a plurality of wireless communications coverage networks within, overlapping, and proximate the existing

wireless communications coverage network; and,

wherein the step of determining the threshold boundary line includes using the compiled information to determine threshold boundary lines between the existing coverage network and the plurality of coverage networks.

18. (currently amended) The method of claim 6 4 wherein the step of exiting the existing coverage network ~~includes~~ further comprises entering a second coverage network and re-configuring the wireless device from an existing coverage network operating system processor to a second coverage network operating system processor.

19. (canceled)

20. (currently amended) In a wireless communications device, a system for determining when to exit an existing wireless communications coverage network, the system comprising: The system of claim 19

a locator having a locator output for outputting device geographical sample positions; and,

a calculator connected to the locator output, the calculator utilizing a history of the device geographical sample positions for supplying an exit control signal, the calculator comprising:

~~wherein the calculator includes:~~

~~a comparison circuit with: a first input connected to the locator output first input, the comparison circuit selecting the a first threshold boundary line and measuring the difference between each device geographical sample position and the first threshold boundary line, the comparison circuit outputting a in response to accepting device geographical sample positions; and, first and second outputs to supply decrement control signal or an and increment control signals, respectively, in response to the measurement comparison;~~

~~a counting circuit with first and second inputs connected to the~~

~~comparison circuit first and second outputs, respectively, the counting circuit, for receiving the decrement control signal or the increment control signal and for performing a mathematical function responsive to accepting the decrement and increment control signals and comparing a mathematical function result to a predetermined terminal value; and, an output, connected to the calculator output, to supply the counting circuit supplying the exit control signal in response to the comparison.~~

21. (currently amended) The system of claim 20 wherein the comparison circuit partitions, into first and second zones separated by the first threshold boundary line, an area including at least a portion of a coverage area for the existing coverage network and at least a portion of a coverage area for a second coverage network proximate the existing coverage network, the first zone proximate a first side of the first threshold boundary line oriented toward the geographical center for the existing coverage network and the second zone proximate a second side of the first threshold boundary line; and, wherein the comparison circuit ~~first output~~ supplies a first decrement control signal in response to accepting a device geographical sample position in the first zone and the comparison circuit ~~second output~~ supplies a first increment control signal in response to accepting a device geographical sample position in the second zone.

22. (original) The system of claim 21 wherein the counting circuit maintains a running total responsive to accepting the decrement and increment control signals and compares the running total to the predetermined terminal value.

23. (currently amended) The system of claim 22 wherein the counting circuit includes: a subtracting circuit ~~with an input connected to the counting circuit first input~~ comparison circuit, the subtracting circuit outputting a decrement and having an output supplying a first predetermined accumulation value in response to accepting the first decrement control signal;

an adding circuit ~~with an input connected to the counting circuit second input~~
comparison circuit, the adding circuit outputting an increment and ~~having an output~~
~~supplying a first predetermined~~ accumulation value in response to accepting the first
increment control signal; and,

a totalizer ~~with first and second inputs connected to the subtracting circuit output~~
and the adding circuit, the totalizer for supplying output, respectively, and ~~an output,~~
~~connected to the counting circuit output, to supply~~ the exit control signal.

24. (currently amended) The system of claim 23 wherein the totalizer maintains the
running total starting at a predetermined initial value, decrements the running total for
each ~~first~~ decrement accumulation value, increments the running total for each ~~second~~
increment accumulation value, and compares the running total to the terminal value.

25. (currently amended) The system of claim 24 wherein the totalizer outputs ~~output~~
~~supplies~~ the exit control signal when the running total is greater than, or equal to the
terminal value, and resets the running total to the initial value after supplying the exit
control signal.

26. (currently amended) The system of claim 20 further comprising:

a transceiver connected to the comparison circuit, ~~a transceiver with an antenna~~
~~port to receive~~ wherein the first threshold boundary line information is received through
an antenna port of the transceiver. and ~~a first output to supply threshold boundary line~~
information; ~~wherein the calculator has a second input connected to the transceiver first~~
~~output; and, wherein the comparison circuit has a second input connected to the~~
~~calculator second input.~~

27. (currently amended) The system of claim 20 wherein the locator generates
information regarding device geographical sample positions.

28. (currently amended) The system of claim 20 further comprising:

a transceiver having an antenna port, wherein the transceiver antenna port receives device geographical sample positions determined by a source external to the wireless communications device and supplies the device geographical sample positions ~~to has a second output connected to the calculator first input to supply the positions.~~

29. (currently amended) The system of claim 20 wherein the comparison circuit forms threshold boundary lines using a plurality of vectors referenced to the a geographical center of the existing wireless communications coverage network.

30. (currently amended) The ~~method~~ system of claim 20 further comprising:

a transceiver for receiving ~~wherein the transceiver first output supplies~~ information regarding coverage areas for other wireless communications coverage networks within, overlapping, and proximate to the existing wireless communications coverage network, the transceiver for supplying the received coverage area information to the comparison circuit; and,

wherein the comparison circuit determines alternate threshold boundary lines between the existing coverage network and the other coverage networks in response to accepting the coverage area information.

31. (currently amended) The system of claim 20 further comprising:

a transceiver;

a digital integrated circuit (IC) operatively connected to the transceiver, ~~the digital IC including an input;~~ and,

a reconfiguration sub-system ~~with an input~~ connected to the calculator, the reconfiguration sub-system receiving the exit control signal from the calculator and supplying sub-system output and an output to supply reconfiguration information in response to the reconfiguration sub-system accepting an exit control signal to the digital IC on the input; and, wherein the transceiver includes an input connected to the

reconfiguration sub-system output.